

What is claimed is:

1 1. An information distribution system for distributing
2 information from an information provider to a user, comprising:
3 an information distribution device for distributing
4 commodity information that serves as an advertisement for a
5 commodity;
6 a communication terminal for receiving the commodity
7 information, and outputting the received commodity information
8 to a memory card; and
9 the memory card that is portable and mounted on the
10 communication terminal, wherein
11 the memory card is provided to the user at a cost borne
12 at least partly by the information provider, and includes:
13 a storage unit having a storage area for commodity
14 information;
15 a judging unit operable to judge whether the
16 received commodity information was issued from the information
17 provider; and
18 a writing unit operable, if the judgment is
19 affirmative, to write the received commodity information to
20 the commodity information storage area for a purpose of
21 displaying to the user.

1 2. The information distribution system according to Claim 1,
2 wherein
3 the memory card outputs the received commodity

4 information to the communication terminal if the judgment is
5 affirmative, and

6 the communication terminal receives the commodity
7 information from the memory card and displays the received
8 commodity information.

1 3. The information distribution system according to Claim 2,
2 wherein

3 the writing unit outputs write-indicate information to
4 the communication terminal if the judgment is affirmative, the
5 write-indicate information indicating that the commodity
6 information has been written,

7 the communication terminal transmits the received
8 write-indicate information to the information distribution
9 device,

10 the information distribution device receives the
11 write-indicate information, generates an electronic ticket
12 having a monetary value based on the received write-indicate
13 information, and securely transmits the generated electronic
14 ticket to the memory card via the communication terminal, and
15 the writing unit writes the received electronic ticket
16 to the storage unit.

1 4. The information distribution system according to Claim 2,
2 wherein

3 the information distribution device transmits the
4 commodity information that includes coupon information showing

5 a discount to be made on the commodity,
6 the writing unit writes the commodity information that
7 includes the coupon information, and
8 the memory card transmits, when the user purchases the
9 commodity, the coupon information via the communication
10 terminal,
11 the information distribution system further comprising
12 a payment settlement device for receiving the coupon information
13 from the memory card via the communication terminal and making
14 a discount on the commodity based on the received coupon
15 information.

1 5. The information distribution system according to Claim 2,
2 wherein
3 the memory card is provided to the user on a lease in
4 return for regular payments of a lease fee to the information
5 provider,
6 the storage unit stores an electronic ticket having a
7 monetary value, and
8 the memory card securely transmits, on a regular basis,
9 an electronic ticket having a monetary value equivalent to the
10 lease fee to the information distribution device via the
11 communication terminal, and deducts the transmitted monetary
12 value from the electronic ticket stored in the storage unit.

1 6. The information distribution system according to Claim 5,
2 wherein

3 the memory card reduces the lease fee on outputting the
4 commodity information to the communication terminal for a
5 purpose of displaying to the user, securely outputs an electronic
6 ticket having a monetary value equivalent to the post-reduction
7 lease fee to the communication terminal, and deducts the
8 outputted monetary value from the electronic ticket stored in
9 the storage unit.

1 7. A memory card provided to a user for storing information
2 transmitted from an information provider to the user, the memory
3 card being portable and mounted on a communication terminal,
4 comprising:

5 a storage unit having a storage area for commodity
6 information issued from a specific information provider;

7 a receiving unit operable to receive commodity
8 information from an information distribution device via the
9 communication terminal;

10 a judging unit operable to judge whether the received
11 commodity information was issued from the specific information
12 provider; and

13 a writing unit operable, if the judgment is affirmative,
14 to write the received commodity information to the commodity
15 information storage area for a purpose of displaying to the
16 user.

1 8. The memory card according to Claim 7, wherein

2 the memory card outputs the received commodity

3 information to the communication terminal if the judgment is
4 affirmative, and
5 the communication terminal receives the commodity
6 information from the memory card and displays the received
7 commodity information.

1 9. The memory card according to Claim 8, wherein
2 the commodity information includes a first provider ID
3 identifying an information provider that issued the commodity
4 information,
5 the receiving unit receives the commodity information
6 that includes the first provider ID,
7 the judging unit prestores a second provider ID
8 identifying the specific information provider, extracts the
9 first provider ID from the received commodity information, and
10 judges whether the received commodity information was issued
11 from the specific information provider, by matching the first
12 provider ID against the second provider ID, and
13 the writing unit writes the received commodity
14 information to the commodity information storage area if the
15 first and second provider IDs match.

1 10. The memory card according to Claim 8, wherein
2 the judging unit prestores a public key of the specific
3 information provider,
4 the information distribution device prestores a secret
5 key of the specific information provider, generates digital

6 signature data from the commodity information using the secret
7 key, and transmits the generated digital signature data,
8 the judging unit receives the digital signature data via
9 the communication terminal, and verifies validity of the digital
10 signature data using the public key to judge whether the
11 commodity information was issued from the specific information
12 provider, and
13 the writing unit writes the received commodity
14 information to the commodity information storage area if the
15 verification is successful.

1 11. The memory card according to Claim 8, wherein
2 the writing unit transmits write-indicate information
3 to the information distribution device via the communication
4 terminal if the commodity information is judged to be issued
5 from the specific information provider, the write-indicate
6 information indicating that the commodity information has been
7 written, and
8 the receiving unit securely receives, via the
9 communication terminal, an electronic ticket generated by the
10 information distribution device, the electronic ticket having
11 a monetary value based on the write-indicate information.

1 12. The memory card according to Claim 8, wherein
2 the memory card is provided to the user on a lease in
3 return for regular payments of a lease fee to the specific
4 information provider,

5 the storage unit stores an electronic ticket having a
6 monetary value, and
7 the receiving unit securely transmits, on a regular basis,
8 an electronic ticket having a monetary value equivalent to the
9 lease fee to the information distribution device via the
10 communication terminal, and deducts the transmitted monetary
11 value from the electronic ticket stored in the storage unit.

1 13. The memory card according to Claim 8, wherein
2 the receiving unit receives the commodity information
3 that includes a priority rank assigned thereto,
4 the commodity information storage area stores commodity
5 information that includes a priority rank assigned thereto,
6 the writing unit writes, when enough free space is not
7 left in the commodity information storage area, the received
8 commodity information by overwriting previously stored
9 commodity information that is lowest in priority rank.

1 14. The memory card according to Claim 8, wherein
2 the commodity information storage area stores commodity
3 information in association with a receiving time of the commodity
4 information,
5 the writing unit writes, when enough free space is not
6 left in the commodity information storage area, the received
7 commodity information by overwriting previously stored
8 commodity information having an earliest receiving time.

1 15. The memory card according to Claim 8, wherein
2 the receiving unit further receives another piece of
3 commodity information issued from another information
4 provider,
5 each piece of commodity information includes a priority
6 rank assigned to a corresponding information provider, and
7 the writing unit writes, when enough free space is not
8 left in the commodity information storage area, the other piece
9 of commodity information by overwriting previously stored
10 commodity information issued from an information provider
11 having a lower priority rank.

1 16. The memory card according to Claim 8, wherein
2 the commodity information storage area stores commodity
3 information issued from the specific information provider that
4 bears a cost of the memory card at least partly.

1 17. A memory card provided to a user for storing information
2 transmitted from an information provider to the user, the memory
3 card being portable and mounted on a communication terminal,
4 comprising:
5 a storage unit having a storage area for commodity
6 information issued from a specific information provider;
7 a first receiving unit operable to receive provider
8 information from an information distribution device via the
9 communication terminal, the provider information showing an
10 information provider that issued commodity information to be

11 received;

12 a judging unit operable to judge based on the received
13 provider information, whether the commodity information was
14 issued from the specific information provider;

15 a second receiving unit operable to receive the commodity
16 information from the information distribution device via the
17 communication terminal if the judgment is affirmative; and

18 a writing unit operable to write the received commodity
19 information to the commodity information storage area.

1 18. The memory card according to Claim 17, wherein

2 the memory card outputs, if the judgment is affirmative
3 and thus receives the commodity information, the received
4 commodity information to the communication terminal, and

5 the communication terminal receives and displays the
6 commodity information.

1 19. The memory card according to Claim 18, wherein

2 the commodity information is associated with a first
3 provider ID identifying an information provider that issued
4 the commodity information,

5 the first receiving unit receives the first provider ID
6 as the provider information,

7 the judging unit judges whether the received first
8 provider ID matches a second provider ID that identifies the
9 specific information provider, and

10 the second receiving unit receives the commodity

11 information if the first and second provider IDs match.

1 20. The memory card according to Claim 18, wherein
2 the judging unit prestores a public key of the specific
3 information provider,
4 the information distribution device prestores a secret
5 key of the specific information provider,
6 the first receiving unit generates a random number, and
7 transmits the generated random number to the information
8 distribution device via the communication terminal,
9 the information distribution device receives the random
10 number, generates digital signature data from the random number
11 using the secret key, and transmits the generated digital
12 signature data to the memory card via the communication terminal,
13 the judging unit verifies, on the first receiving unit
14 receiving the digital signature data, validity of the digital
15 signature data using the public key to judge whether the
16 commodity information to be received was issued from the specific
17 information provider, and
18 the second receiving unit receives the commodity
19 information if the verification is successful.

1 21. The memory card according to Claim 18, wherein
2 an information provider device stores the commodity
3 information issued from the specific information provider, a
4 second public key of the information distribution device, and
5 a first secret key of the information provider device, applies

6 a digital signature algorithm to the second public key using
7 the first secret key to generate digital signature data, and
8 transmits the generated digital signature data and the second
9 public key to the information distribution device,
10 the information distribution device prestores a second
11 secret key of the information distribution device, receives
12 the digital signature data and the second public key, and
13 transmits the received digital signature data and second public
14 key to the memory card via the communication terminal,
15 the judging unit prestores a first public key of the
16 information provider device, receives the digital signature
17 data and the second public key, and verifies validity of the
18 digital signature data using the first public key, the digital
19 signature data, and the second public key, and
20 the second receiving unit receives the commodity
21 information if the verification is successful.

1 22. The memory card according to Claim 18, wherein
2 the first receiving unit generates a random number and
3 transmits the generated random number to the information
4 distribution device via the communication terminal,
5 the information distribution device prestores a common
6 key, receives the random number, encrypts the random number
7 using the common key to generate ciphertext, and transmits the
8 generated ciphertext to the memory card via the communication
9 terminal,
10 the judging unit prestores a common key that is identical

11 to the common key stored in the information distribution device,
12 and, on the first receiving unit receiving the ciphertext,
13 verifies using the common key, whether the received ciphertext
14 is generated from the random number using the common key, and
15 the second receiving unit receives the commodity
16 information if the ciphertext is judged to be valid.

1 23. The memory card according to Claim 18, wherein
2 the commodity information storage area stores commodity
3 information issued from the specific information provider that
4 bears a cost of the memory card at least partly.

1 24. A memory card for storing information transmitted from an
2 information provider to a user, the memory card being portable
3 and mounted on a communication terminal, wherein
4 the memory card is provided to the user on a lease in
5 return for regular payments of a lease fee to the information
6 provider,

7 the memory card comprising:
8 a storage unit having a storage area for commodity
9 information issued from the information provider, and a storage
10 area for an electronic ticket having a monetary value;
11 a first transmitting-receiving unit operable to receive
12 a first provider ID identifying the information provider from
13 the information distribution device via the communication
14 terminal;

15 a first writing unit operable to write the received first

16 provider ID to the commodity information storage area;
17 a second transmitting-receiving unit operable to securely
18 transmit, on a regular basis, an electronic ticket having a
19 monetary value equivalent to the lease fee to the information
20 distribution device via the communication terminal;
21 a third transmitting-receiving unit operable to receive
22 from the information distribution device, commodity
23 information that includes a second provider ID identifying an
24 information provider of the commodity information;
25 a judging unit operable to judge whether the second
26 provider ID matches the first provider ID;
27 a second writing unit operable to write, if the first
28 and second provider IDs match, the received commodity
29 information to the commodity information storage area for a
30 purpose of displaying to the user;
31 a fourth transmitting-receiving unit operable to reduce
32 the lease fee by a predetermined amount when the commodity
33 information is written, and securely transmit to the information
34 distribution device via the communication terminal, an
35 electronic ticket having a monetary value equivalent to the
36 post-reduction lease fee; and
37 a third writing unit operable to deducts the transmitted
38 monetary value from the electronic ticket stored in the storage
39 unit.

1 25. A memory card for storing information distributed from an
2 information provider to a user, the memory card being portable

3 and mounted on a communication terminal, comprising:
4 a storage unit having a storage area for commodity
5 information issued from the information provider, and a storage
6 area for an electronic ticket having a monetary value;
7 a first transmitting-receiving unit operable to receive
8 a first provider ID identifying the information provider from
9 the information distribution device via the communication
10 terminal;
11 a first writing unit operable to write the received first
12 provider ID to the commodity information storage area;
13 a second transmitting-receiving unit operable to receive
14 from the information distribution device via the communication
15 terminal, commodity information that includes a second provider
16 ID identifying information provider that issued commodity
17 information to be received;
18 a judging unit operable to judge whether the second
19 provider ID matches the first provider ID;
20 a second writing unit operable, if the first and second
21 provider IDs match, to receive the commodity information and
22 write the received commodity information to the commodity
23 information storage area for a purpose of displaying to the
24 user;
25 a third transmitting-receiving unit operable to transmit
26 to the information distribution device via the communication
27 terminal, write-indicate information indicating that the
28 commodity information has been written, and securely receive
29 an electronic ticket generated by the information distribution

30 device for a monetary value based on the write-indicate
31 information; and
32 a third writing unit operable to write the received
33 electronic ticket to the storage unit.

1 26. An information distribution device for distributing
2 information issued from an information provider to a user,
3 comprising:

4 a transmitting unit operable to transmit, via a
5 communication terminal, commodity information issued from the
6 information provider to a memory card that is provided to the
7 user.

1 27. The information distribution device according to Claim 26,
2 wherein

3 the information distribution device generates, when
4 receiving write-indicate information from the memory card, an
5 electronic ticket having a monetary value based on the received
6 write-indicate information, the write-indicate information
7 indicating that the memory card has written the commodity
8 information, and

9 the transmitting unit securely transmits the electronic
10 ticket to the memory card via the communication terminal.

1 28. The information distribution device according to Claim 26,
2 wherein the transmitting unit transmits the commodity
3 information that includes coupon information showing a discount

4 to be made on a commodity of the information provider.

1 29. The information distribution device according to Claim 28,
2 wherein

3 the information distribution device receives
4 discount-indicate information from a payment settlement device
5 and generates an electronic ticket for a monetary value based
6 on the received discount-indicate information, the
7 discount-indicate information indicating that the payment
8 settlement device has made the discount shown by the coupon
9 information, and

10 the transmitting unit securely transmits the electronic
11 ticket to the memory card via the communication terminal.

1 30. A payment settlement device for settling a payment on a
2 commodity, comprising:

3 a storage unit operable to prestore a first provider ID
4 that identifies an information provider that issues coupon
5 information showing a discount to be made on the commodity;

6 a receiving unit operable to receive via a communication
7 terminal from a memory card used by the user, coupon information
8 including a second provider ID that identifies an information
9 provider that issued the received coupon information;

10 a judging unit operable to judge whether the second
11 provider ID matches the first provider ID; and

12 a discount unit operable to make a discount shown by the
13 received coupon information if the first and second provider

14 IDs match.

1 31. The payment settlement device according to Claim 30, wherein
2 the coupon information is transmitted from an information
3 distribution device to the memory card via the communication
4 terminal,

5 the discount unit regularly transmits discount-indicate
6 information to the information distribution device, the
7 discount-indicate information indicating that the discount
8 shown by the coupon information has been made,

9 the receiving unit securely receives an electronic ticket
10 that is generated by the information distribution device for
11 a monetary value based on the discount-indicate information,
12 and

13 the storage unit stores the received electronic ticket.

1 32. A program used by a memory card for storing information
2 distributed from an information provider,

3 wherein the memory card is portable and mounted on a
4 communication terminal, and is provided to the user, and

5 the memory card includes a storage unit having a storage
6 area for commodity information issued from a specific
7 information provider, the program comprising:

8 a receiving step of receiving commodity information from
9 an information distribution device via the communication
10 terminal;

11 a judging step of judging whether the received commodity

12 information was issued from the specific information provider;
13 and
14 a writing step of writing, if the judgment is affirmative,
15 the received commodity information to the commodity information
16 storage area for a purpose of displaying to the user.

1 33. A method used by a memory card for storing information
2 distributed from an information provider,
3 wherein the memory card is portable and mounted on a
4 communication terminal, and is provided to the user, and
5 the memory card includes a storage unit having a storage
6 area for commodity information issued from a specific
7 information provider, the method comprising:
8 a receiving step of receiving commodity information from
9 an information distribution device via the communication
10 terminal;
11 a judging step of judging whether the received commodity
12 information was issued from the specific information provider;
13 and
14 a writing step of writing, if the judgment is affirmative,
15 the received commodity information to the commodity information
16 storage area for a purpose of displaying to the user.

1 34. A computer readable recording medium storing a program used
2 by a memory card for storing information distributed from an
3 information provider,
4 wherein the memory card is portable and mounted on a

5 communication terminal, and is provided to the user, and
6 the memory card includes a storage unit having a storage
7 area for commodity information issued from a specific
8 information provider, the program comprising:
9 a receiving step of receiving commodity information from
10 an information distribution device via the communication
11 terminal;
12 a judging step of judging whether the received commodity
13 information was issued from the specific information provider;
14 and
15 a writing step of writing, if the judgment is affirmative,
16 the received commodity information to the commodity information
17 storage area for a purpose of displaying to the user.

1 35. A program for a memory card used by a memory card for storing
2 information distributed from an information provider,
3 wherein the memory card is portable and mounted on a
4 communication terminal, and is provided to the user, and
5 the memory card includes a storage unit having a storage
6 area for storing commodity information issued from a specific
7 information provider, the program comprising:
8 a first receiving step of receiving provider information
9 from an information distribution device via the communication
10 terminal, the provider information showing an information
11 provider that issued commodity information to be received;
12 a judging step of judging, based on the received provider
13 information, whether the commodity information was issued from

14 the specific information provider;
15 a second receiving step of receiving the commodity
16 information from the information distribution device via the
17 communication terminal if the judgment is affirmative; and
18 a writing step of writing the received commodity
19 information to the commodity information storage area.

1 36. A method for a memory card used by a memory card for storing
2 information distributed from an information provider,
3 wherein the memory card is portable and mounted on a
4 communication terminal, and is provided to the user, and
5 the memory card includes a storage unit having a storage
6 area for storing commodity information issued from a specific
7 information provider, the method comprising:
8 a first receiving step of receiving provider information
9 from an information distribution device via the communication
10 terminal, the provider information showing an information
11 provider that issued commodity information to be received;
12 a judging step of judging, based on the received provider
13 information, whether the commodity information was issued from
14 the specific information provider;
15 a second receiving step of receiving the commodity
16 information from the information distribution device via the
17 communication terminal if the judgment is affirmative; and
18 a writing step of writing the received commodity
19 information to the commodity information storage area.

1 37. A computer readable recording medium storing a program used
2 by a memory card for storing information distributed from an
3 information provider,
4 wherein the memory card is portable and mounted on a
5 communication terminal, and is provided to the user, and
6 the memory card includes a storage unit having a storage
7 area for storing commodity information issued from a specific
8 information provider, the program comprising:
9 a first receiving step of receiving provider information
10 from an information distribution device via the communication
11 terminal, the provider information showing an information
12 provider that issued commodity information to be received;
13 a judging step of judging, based on the received provider
14 information, whether the commodity information was issued from
15 the specific information provider;
16 a second receiving step of receiving the commodity
17 information from the information distribution device via the
18 communication terminal if the judgment is affirmative; and
19 a writing step of writing the received commodity
20 information to the commodity information storage area..